

REMARKS

Claims 1-30 are pending in this application. Claims 1, 6, 11-16, 21, and 26-30 are independent claims. Claims 2-5, 7-10, 17-20, and 22-25 are dependent claims.

Claims 1-30 have been rejected. Amendments to claims 1, 4-6, 9, 10, 15, 16, 19-21, 24, 25, and 30 are presented herein. Claims 2, 3, 7, 8, 11-14, 17, 18, 22, 23, and 26-29 have been cancelled in this response. No new matter is being presented, and approval and entry are respectfully requested.

Examiner Interview

On May 28, 2003, the undersigned conducted an Examiner Interview with Examiner Garcia. The Examiner indicated during the Examiner Interview that he would reconsider the case after receiving amendments and arguments clarifying the differences between the prior art of record and the claimed invention. It is respectfully submitted that the amendments presented herein and the remarks below clarify the differences between the Kageyama reference and the claimed invention.

Rejections Under 35 U.S.C. § 102

In items 2 and 3 on pages 2-5 of the Office Action, the Examiner rejected claims 1-30 under 35 U.S.C. § 102(e) as being anticipated by Kageyama et al. (U.S. Patent No. 5,774,638). Applicants respectfully traverse these rejections for the reasons presented below.

Claim 1 of the present invention recites, as amended, the following (with emphasis added):

1. (CURRENTLY AMENDED) A printer receiving and printing print data on one page, the print data being received from a host computer and comprising a plurality of different types of data, the printer comprising:
a separation unit separating the print data into separate sets of data according to the different types of data;

an image buffer having a plurality of storage locations, **each storage location storing one type of data;**
a storage unit storing each separate set of data in a different one of the storage locations of the image buffer;
a plurality of video interfaces independently reading a respective one of the separate sets of data stored in a corresponding storage location of the image buffer;
a print data integration circuit integrating the separate sets of data read by the video interfaces; and
an output mechanism outputting the integrated print data on one page.

In the present invention, data to be printed (i.e., print data) are separated according to the types of data comprising the print data. For example, if the print data contains a form with text, the data related just to the text are stored in one location of the image buffer, and the data related just to the form or image are stored in another location of the image buffer. As shown in, for example, Figure 5 of the present application, a first video interface receives just the text data and a text-related process is then performed on the text data. Another video interface receives just the form data and an image-related process is then performed on the form data. The separated data are then rejoined.

The Kageyama reference discloses that the master processor divides one page into areas #1 through #K, obtains a partial page buffer in a free state for each area, and instructs each slave processor to draw a corresponding area by starting a process called “intrapaginal-mode individual drawing task.” See Kageyama at col. 3, lines 55-63.

While the Kageyama reference discloses dividing a page into multiple areas (e.g., see Figures 22 and 23 of Kageyama) and storing the data to be printed for each area in different partial page buffers, Kageyama does not disclose separating the data to be printed into multiple data sets depending on the type of data comprising the data to be printed. Accordingly, any of the areas in Figures 22 or 23 may contain both text and image data that are stored in one of the partial page buffers. Thus, while Kageyama divides a **page** into multiple areas, the present invention separates the **data** to be printed.

Therefore, it is submitted that claim 1 patentably distinguishes over the prior art. Independent claims 6, 11-16, 21, and 26-30 recite language similar to that of claim 1, except that claim 6 is directed to a controller controlling a printer to output print data, claim 15 is

directed to a method of processing print data, claim 16 is directed to an image forming apparatus, claim 21 is directed to a controller controlling a printer to output form data, and claim 30 is directed to a method of processing form data. Thus, for at least the reasons presented above with respect to claim 1, it is submitted that claims 6, 11-16, 21, and 26-30 patentably distinguish over the prior art.

As for the dependent claims, the dependent claims respectively depend from the above-discussed independent claims and are patentable over the prior art for at least the reasons discussed above.

Therefore, Applicants submit that claims 1, 4-6, 9, 10, 15, 16, 19-21, 24, 25, and 30 patentably distinguish over the prior art. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under § 102.

Request for Return of Form PTO-1449

On September 11, 2002 and December 3, 2002, Applicants filed an Information Disclosure Statement with a Form PTO-1449 and an Attachment 1(g) (List of Additional Submitted Documents). The Examiner has returned initialed copies of Attachment 1(g) filed on the above dates. However, copies of the Form PTO-1449 for both September 11, 2002 and December 3, 2002 have not yet been returned to Applicants to confirm that the references cited therein have been considered. Accordingly, it is requested that the Examiner confirm consideration of these references by initialing and returning these 1449 forms. For convenience, copies of the 1449 forms are attached to this request.

Conclusion

In accordance with the foregoing, it is respectfully submitted that all outstanding rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding rejections, the application is submitted to be in condition for allowance, which action is earnestly solicited.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Finally, if there are any additional fees associated with filing of this response, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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